THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N. S. DAVIS.

PUBLISHED WEEKLY.

VOL. II. CHICAGO, FEBRUARY 16, 1884. No. 7.

ORIGINAL ARTICLES.

REPORT OF THE STANDING COMMITTEE ON METEOROLOGICAL CONDITIONS AND THEIR RELATIONS TO THE PREVALENCE OF ACUTE DISEASES.

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[Presented to the American Medical Association in session at Cleveland, Ohio, June 7, 1883.]

[Continued from No. 4, Vol. II.]

The following tables present in a condensed form the amount of free and albuminoid ammonia in the atmosphere in the city of Chicago, at a station where the population is moderately dense, of good quality, with fairly good sewerage and water supply, as determined by Prof. Long for each day of the twelve months ending August 31, 1883: *

AMOUNTS OF AMMONIA GIVEN IN GRAMS, IN 1,000 M^3 OF AIR—OBSERVATIONS FROM 8 A. M. TO 8 A. M.

DATE.	SEPTEMBER, '82.		OCTOBER, '82.		NOVEMBER, '82.		DECEMBER, '82.		JANUARY, '83.		FEB'Y, '83.	
	Ammonia.		Ammonia.		Ammonia.		Ammonia.		Ammonia.		Ammonia.	
	Free.	Alb.	Free.	Alb.	Free.	Alb.	Free.	Alb.	Free.	Alb.	Free.	Alb.
1— 2	.000	.020	Trace	.066	.012	.072	.011	.094	.039	.082	.072	.133
2— 3	.050	.072	.033	.136	.015	.103	.000	.050	.006	.100	.094	.155
3— 4	.022	.044	.022	.100	.011	.061	.012	.039	.017	.135	.089	.155
4— 5	.045	.083	.027	.072	.022	.120	.050	.165	.022	.072	.056	.072
5— 6	.066	.093	.022	.065	.009	.073	.016	.056	.045	.110	.022	.066
6— 7	.100	.135	.017	.094	.016	.084	.000	.110	.023	.068	.022	.071
7— 8	.134	.105	.016	.067	.017	.094	.011	.112	.017	.089	.028	.056
8— 9	.084	.100	.023	.077	.023	.145	.022	.082	.016	.073	.023	.088
9—10	.073	.100	.022	.050	.016	.089	.060	.111	.006	.065	.022	.061
10—11	.061	.172	.033	.073	.011	.071	.017	.093	.011	.082	.016	.065
11—12	.044	.173	.022	.093	.016	.092	.060	.120	.039	.071	.023	.095
12—13	.045	.111	.017	.089	.015	.095	.014	.118	.040	.072	.022	.083
13—14	.070	.244	.028	.111	.012	.082	.009	.133	.027	.050	.022	.077
14—15	.044	.170	.034	.094	.018	.073	.000	.084	.022	.089	.017	.094
15—16	.033	.023	.024	.083	.011	.100	.006	.140	.016	.101	.044	.084
16—17	.033	.094	.023	.098	.022	.130	.022	.088	.016	.150	.033	.110
17—18	.039	.136	.016	.111	.014	.066	.000	.080	.027	.065	.016	.095
18—19	.045	.135	.023	.145	.023	.055	.011	.135	.040	.067	.019	.100
19—20	.056	.105	.018	.106	.018	.065	.028	.180	.040	.122	.034	.104
20—21	.055	.104	.011	.105	.013	.056	.023	200	.011	.068	.033	.083
21—22	.044	.089	.025	.130	.017	.100	.033	.060	.011	.072	.028	.100
22—23	.035	.094	.011	.104	.019	.112	.011	.068	.022	.090	.040	.111
23—24	.033	.084	.033	.072	.055	.100	.027	.072	.027	.105	.044	.105
24—25	.073	.089	.012	.061	.072	.094	.039	.061	.017	.094	.111	.133
25—26	.039	.083	.016	.103	.039	.112	.033	.089	.012	.100	.133	.134
26—27	.022	.111	.022	.073	.024	.072	.027	.083	.023	.122	.110	.111
27—28	.044	.106	.017	.112	.044	.094	.022	.130	.011	.089	.061	.077
28—29	.040	.084	.018	.094	.038	.073	.065	.132	.010	.078	.011	.073
29—30	.034	.072	.016	.106	.028	.056	.011	.133	.028	.124	....	....
30—31	.074	.095	.011	.114	.019	.050	.060	.120	.039	.110	....	....
31— 1			.012	.105			.060	.111	.028	.092	....	....

* The last four months have been added since the report to the meeting in Cleveland.

AMOUNTS OF AMMONIA GIVEN IN GRAMS IN 1000 M^3 OF AIR—OBSERVATIONS FROM 8 A. M. TO 8 P. M. (CONTINUED.)

DATE.	MARCH, '83.		APRIL, '83.		MAY, '83.		JUNE, '83.		JULY, '83.		AUGUST, '83.	
	Ammonia.		Ammonia.		Ammonia.		Ammonia.		Ammonia.		Ammonia.	
	Free.	Alb.	Free.	Alb.	Free.	Alb.	Free.	Alb.	Free.	Alb.	Free.	Alb.
1— 2	.010	.122	.022	.056	.005	.060	.032	.060	.011	.035	.032	.052
2— 3	.006	.083	.038	.067	.002	.050	.045	.068	.011	.040	.020	.055
3— 4	.022	.133	.017	.050	.002	.055	.040	.078	.026	.045	.021	.050
4— 5	.023	.100	.023	.083	.004	.078	.022	.050	.038	.067	.020	.050
5— 6	.016	.105	.006	.066	.004	.044	.023	.045	032	.033	.016	.044
6— 7	.028	.084	.016	.080	.003	.045	.027	.055	.033	.041	.026	.040
7— 8	.022	.112	.028	.084	.002	.061	.021	.050	.030	.042	.021	.065
8— 9	.021	.044	.023	.060	.017	.053	.017	.054	.032	.070	.018	.062
9—10	.045	.122	.021	.065	.011	.044	.020	.093	.021	.039	.040	.060
10—11	.011	.065	.018	.061	.020	.055	.016	.070	.022	.055	.030	030
11—12	.011	.044	.022	.055	.007	.056	.017	.100	.020	.045	.024	.060
12—13	.005	.050	.017	.072	.011	.050	.016	.072	.032	.061	.011	.065
13—14	.000	.044	.033	.061	.033	.050	.020	.061	.032	.052	.012	.050
14—15	.000	.054	.040	.061	.014	.056	.018	.080	.030	.060	.011	.046
15—16	.027	.066	.017	.044	.028	.051	.011	.066	.021	.054	.012	.053
16—17	.033	.078	.011	.050	.013	.033	.026	.065	.017	.045	.021	.058
17—18	.028	.065	.011	.045	.033	.039	.022	.066	.016	.055	.020	.067
18—19	.011	.072	.011	.050	.024	.050	.022	.060	.022	.050	.015	055
19—20	.011	.077	.006	.044	.022	.044	.021	.050	.011	.045	.026	059
20—21	.009	.067	.006	.045	.028	.050	.034	.040	.016	.054	.015	052
21—22	.033	.066	.000	.065	.022	.056	.026	.055	.011	.039	.010	.051
22—23	.027	.055	.005	.050	.011	.061	.027	.050	.022	.038	.024	.110
23—24	.006	056	.006	.050	.027	.045	.045	.068	.006	.055	.025	.081
24—25	.039	.088	.011	.066	.034	.055	.040	.061	.017	.056	.026	.049
25—26	.016	.050	.011	.061	.038	.062	.032	.056	.009	070	.030	.062
26—27	.017	.044	.011	.065	.033	.054	.023	.050	.011	.068	.015	.060
27—28	.022	.110	.017	.066	.040	.068	.027	.070	.016	.044	.026	.052
28—29	.011	.045	.005	.045	.032	.062	.011	.045	.025	.035	.019	.047
29—30	.017	.045	.007	.062	.029	.060	.026	.050	.033	.062	.018	.041
30—31	.027	.067	.008	.044	.026	.044	.016	.039	.020	.041	.017	.042
31— 1	.028	.056	....	....	.035	.039	....	....	.026	047	.016	.050

These tabulated details giving the results of most careful daily examination of the atmosphere during an entire year in the same locality, and by uniform processes, develope several facts of value. First, they show that both free and albuminoid ammonia are constant elements of the atmosphere, at least in cities or densely populated localities, their presence in quantity capable of measurement having been found every day in the year. Second, that the free ammonia is much less in quantity than the albuminoid, and that they do not bear any uniform ratio to each other. Both vary much in brief periods of time, the quantity of free ammonia exhibiting these variations in a much greater degree than the albuminoid. Third, that the presence of decomposing animal matter directly increases the quantity of both varities of ammonia. When the decomposing material is moist, the increase of the free ammonia is greatest, and when dry the amount of free ammonia may be so small as to impart but little odor, and yet the albuminoid be greatly increased. The details mentioned by Prof. Long also show that the ammonial constituents of the air can be markedly increased at considerable distances from their source by atmospheric currents, as shown by the effects of the winds from the direction of Bridgeport, the principal packing and manufacturing establishments of which, are from two to four miles from the college laboratory where the observations were made.

Before making further application of these tables, we will give a similar tabular statement of the indications of ozone or active oxidizing agents in the atmosphere at the several stations selected for observation, as follows:

OZONE REPORT FOR THE YEAR 1882.

Scale of Coloration from 1 to 10 indicated by figures; blank, = no indication; x, = no observation; D, = day; N, = night.

JANUARY.

Day of Month.	Boston.		New York.		Pittsburg.		Baltimore.		Cincinnati.		Maryport, Fla.		Denver.		San Francisco.		St. Paul.		Chicago.		Evanston.		Lansing.		Day of Month.
	Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		
	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	N.	D.	D.	N.	D.	N.	D.	N.	
1													1												1
2													1												2
3													1								1	2			3
4							1						1						4		2				4
5													1						3			1			5
6													1								2	4			6
7																						1			7
8													1								2				8
9													1									1			9
10													1	1							2				10
11													1								2	1			11
12																					2				12
13													1								1	2			13
14													1								1				14
15													1								2	1			15
16													1												16
17													1								2				17
18													1						1						18
19																									19
20													1								2				20
21													1								1				21
22																					3				22
23													1												23
24													1								1				24
25													1								2				25
26													1								1	2			26
27													1									2			27
28													1												28
29																					2				29
30													1								1				30
31													1												31

OZONE REPORT FOR THE YEAR 1882.

Scale of Coloration from 1 to 10 indicated by figures; blank, = no indication; x = no observation; D, = day; N, = night.

FEBRUARY.

Day of Month.	Boston.		New York.		Pittsburgh.		Baltimore.		Cincinnati.		Mayport, Fla.		Denver.		San Francisco.		St. Paul.		Chicago.		Evanston		Lansing.		Day of Month.
	Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		
	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	
1											1	1	1			1	1				x				1
2											1	1	1			1	1								2
3											1	1	1		1										3
4											1	1			2										4
5											1	1	1				1								5
6											1	1	1												6
7											1	1	1												7
8											1	1	1	1	1	1									8
9											1	1	1				1								9
10											1	1	1		1	1									10
11											2	1	1		1										11
12											1	1	1			1	x								12
13											1	1	1		1										13
14											1	1	1									x			14
15											1	2	1				1								15
16											1	1	1		1	1	1		3	4					16
17											1	1	1						5	3	2				17
18											1	1	2			1							1		18
19											1	1	2		2	1	1			4			1	1	19
20											1		3			2	1		4				1	1	20
21											1		3			1							1	5	21
22												1	4	1	1								5	5	22
23											1	1	5	2									4	3	23
24											1	1	3	1									3	3	24
25											1		2		2	1							3	4	25
26											1	1	1		2	1							2	2	26
27											1		2			1					1		2	5	27
28											1	1	1		2	1								3	28

OZONE REPORT FOR THE YEAR 1882.

Scale of Coloration from 1 to 10 indicated by figures; blank. = no indication; x, = no observation; D, = day; N, = night.

MARCH.

Day of Month.	Boston.		New York.		Pittsburgh.		Baltimore.		Cincinnati.		Mayport, Fla.		Denver.		San Francisco.		St. Paul.		Chicago.		Evanston.		Lansing.		Day of Month.
	Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		
	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	
1											1		2	1	x	x							1	3	1
2											1		1	1									2	5	2
3													2	1			9			3			4	1	3
4													2	2			9		6	3			1	3	4
5											1		2	2			4	x					1	4	5
6											1	1	2	1			3	3		2			3	4	6
7												1	2	2			6	5	3	5			2	1	7
8													1	1			9	7	4	5			2		8
9													1	2			4		4					1	9
10												1	1	1									3	3	10
11											1	1	1	1			8						3	1	11
12												1	1	1			4	3		2			3	4	12
13													x	1			2						3	3	13
14	1	1											1	1			3	9					3	2	14
15												2	1	1			5	8						2	15
16											1		1	1			9			5		5	1	1	16
17		1										1	1	1			9	5	2				2		17
18											1		1	1										4	18
19											1		1	1			9		3	4	3	3	3		19
20													1	1			9	6						1	20
21											1		1	1			9						3	5	21
22		1											1	1				3					4	3	22
23											1	1	1	1					2				4	4	23
24												1	1	1			9						2	3	24
25											1	1	1	1			9	8				3		4	25
26											1		1	1			8	7			3	3	1	6	26
27	1	1									1	1	1	1			3	2		4	3	3	3	4	27
28													1	2							2	2		2	28
29													1	1			5						3	5	29
30											1	1	1	1			3	7		2		2	4	3	30
31	1										1	1		1				6			3	4		3	31

OZONE REPORT FOR THE YEAR 1882.

Scale of Coloration from 1 to 10 indicated by figures; blank, = no indication; x, = no observation; D, = day: N, = night.

APRIL.

Day of month.	Boston.		New York.		Pittsburgh.		Baltimore.		Mayport, Fla.		Cincinnati.		Denver.		San Francisco.		St. Paul.		Chicago.		Evanston.		Lansing.		Day of month.
	Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		
	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	
1	3								1	1			1	1					3	3	6	3	4		1
2													1	1							5	3	4	6	2
3									1	2			1	1							2	3	1	4	3
4					x				1	2			2	2					1	3	2	2	4	1	4
5									1				1	1					1		1				5
6													6	2			5	1		1	3	1		4	6
7													6	6							3	2	3		7
8													3	2					7	3	2	3			8
9									1				1	3							2	5	2	2	9
10									1				1	1					3	7	4	4		3	10
11													3	3					6	5	1	1	3	x	11
12										1			3	1					3	3	1	0	3	3	12
13									1	1			1	4					5	4	3	4	3	3	13
14									1				1	1					4		3		3		14
15										1			1	1							3		3	3	15
16									1	4			1	1								1	3	4	16
17									1	6			1								3		4	3	17
18									4				1								5	6	3	2	18
19													1	1							1	1	3	5	19
20									2				1						2	1		4	4	4	20
21										1			1	1					6	7	5	1	2	1	21
22									1	4			2	1					4	7	7	2		3	22
23									2	1			2	4					4	6	4	5		1	23
24									5	6			1	4					5	6	3	5		1	24
25									5	2			2	3					6	4	3	5	1	1	25
26									2				2	2					1		3				26
27									1				2	1							3	2	x	5	27
28									5				1	1							x	x	3	3	28
29									4				1	1						3	x	x	3	2	29
30									1				1								x	x	3	x	30

OZONE REPORT FOR THE YEAR 1882.

Scale of Coloration from 1 to 10 indicated by figures; blank, = no indication; x, = no observation; D, = day; N, = night.

MAY.

Day of Month.	Boston.		New York.		Pittsburgh.		Baltimore.		Cincinnati.		Mayport, Fla.		Denver.		San Francisco. x		St. Paul.		Chicago.		Evanston.		Lansing.		Day of Month.
	Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		
	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	
1											1		4	2							1	5	4	4	1
2											1		2							1	4		3	1	2
3											1		1								2	5	2	3	3
4											2		1							4	6	2		2	4
5											1	1	1						7	7		1			5
6													2	1					4	5					6
7											1		2	1			3		3	1	4	5	2	3	7
8													4				4	5	1		5	4		1	8
9													4								2		1		9
10											1								1	4				2	10
11											2								5	4					11
12											3	3						2	6	5	2	4		1	12
13											3								4	4	3	1		1	13
14											2								6	7			3	3	14
15																			6	2				1	15
16											1	3							4	1		1	2	3	16
17											1	4	1								2	1	3		17
18											2	6	1								4	1	1	3	18
19											5	4									1		3	4	19
20											3	2									6	5	1	2	20
21											3	3	2						1		4	7	3	3	21
22											2										2	4	2	2	22
23												2	2								2	1	3	2	23
24											1	1	2						1	1			1	1	24
25											3	1	2						4	1	1	5	3	2	25
26											4	2	3	1					1	5	5	3	3	2	26
27	1										3	1	5	1					5	5	2	4		1	27
28											1		7	2					4	4	1	3			28
29													5	2					4	1			3	3	29
30	2												4	2							5	3	3	2	30
31													4	3							4	2	4	4	31

OZONE REPORT FOR THE YEAR 1882.

Scale of Coloration from 1 to 10 indicated by figures; blank, = no indication; x = no observation; D, = day; N, = night.

JUNE.

Day of Month.	Boston.		New York.		Pittsburgh.		Baltimore.		Cincinnati.		Mayport, Fla.		Denver.		San Francisco.		St. Paul.		Chicago.		Evanston.		Lansing.		Day of Month.
	Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		
	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	
1													3	1	x	x							4	3	1
2			1										3	2								1	2	1	2
3			1	1									4	3										1	3
4			1	1									4	2											4
5			1	1								1	4								1		4	2	5
6			1								2		5	2									3	4	6
7				1									3	2									x	4	7
8				1							1	1	3								1		3	3	8
9													4	3						5	2	1	3	4	9
10											1		3	2					5	7	3	2	2	1	10
11													4	6					4	3	2	1	i		11
12													6	2					4	3	2	2	1		12
13												3	5	2							3		i	3	13
14													5	2								1	2	4	14
15													6	2									4	1	15
16				1									6	2								1	3	3	16
17													5	2							2	1	3		17
18													4	1						3		4	2	3	18
19													4	1					4	3	1		2		19
20				1									5	1					3		1		2		20
21													6	2									1	3	21
22													4	1						4			1	3	22
23													4	3									1	2	23
24													5	1						2			3	1	24
25				1									5	2									3	3	25
26												1	6	1									3	1	26
27			1										5	2					x				1		27
28			1	1									6	3					x						28
29			1								1		5	2					3		1	1	1	2	29
30											2		4	2							3	2	1	3	30

OZONE REPORT FOR THE YEAR 1882.

Scale of Coloration from 1 to 10 indicated by figures; blank, = no indication; x, = no observation; D, = day; N, = night.

JULY.

Day of Month.	Boston.		New York.		Pittsburgh.		Baltimore.		Cincinnati.		Mayport, Fla.		Denver.		San Francisco.		St. Paul.		Chicago.		Evanston.		Lansing.		Day of Month.
	Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		
	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	
1													5	2			2				2	1	2	1	1
2													8	2						6	2	1	3	2	2
3											1		5	2						6	2				3
4													5	2					5	5	1				4
5													5	2									2		5
6											1	1	6	1									2	1	6
7													8	2			2						2	3	7
8													4	1					4		1				8
9													6	2								1	3	3	9
10												1	6	2									3	3	10
11												1	4	2									4	3	11
12													5	2				2			1	1	1	4	12
13													3	1			1						2	2	13
14													5	2					1				1		14
15													6	1								1	1	2	15
16											1		5	2								1	3	2	16
17													5	1							1	1	1	2	17
18													4	1							1		3	3	18
19													3	1				2			1		3	3	19
20													6	2									4	2	20
21													2				2		3			1	2	2	21
22													7	1			2						1	1	22
23													6	1			2				1		1	2	23
24													5	2									3	3	24
25													6	3							1		2	3	25
26													5	2							1	1	2	3	26
27													5	2				2		1	2		4	2	27
28												1	5	2							2	2	5	1	28
29													6	3				1			2	1		1	29
30													5	2						7	2	1			30
31													4	1							1				31

OZONE REPORT FOR THE YEAR 1882.

Scale of Coloration from 1 to 10 indicated by figures; blank. = no indication; x, = no observation; D, = day; N, = night.

AUGUST.

Day of Month.	Boston.		New York.		Pittsburgh.		Baltimore.		Cincinnati.		Mayport, Fla.		Denver.		San Francisco.		St. Paul.		Chicago.		Evanston.		Lansing.		Day of Month.
	Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		
	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	
1													3	1						2	1		1	1	1
2													2				2		5	4	2	2			2
3													5	1			9			6	2	4	1	1	3
4			3	4							1		4	1					3		3			1	4
5				3									6	3						3	1		1	1	5
6													3								0	1	1	2	6
7													2								1		2	2	7
8			2										3	1								1		3	8
9			2	1							1		3	2							2		1	2	9
10			1										3	1								1	1	1	10
11				3									4	1			2						3	3	11
12													5	1							2		3		12
13													4										1	2	13
14			3										4	1									2	3	14
15			1	1									5	2							1	1	2	2	15
16													3	1							3	1	3	2	16
17			3										3	1							1	1	1		17
18			3										2								2	1	1	2	18
19			3	1									1									2	2		19
20													2	1							2		3	3	20
21			2										3	1							2	1	3	3	21
22			2										2	1							1		3	1	22
23			4	3									1							6	1		1		23
24			4	1									1						1		2	1			24
25			3	2									3								1	1	1		25
26			3	2									2	1							3	2	1	1	26
27													2	1						4	3	3	2	2	27
28			2										3	1					3		1	2	1		28
29			2	2									1								2	2	1		29
30			2										1	1							1		2		30
31			3										3	1								1		1	31

OZONE REPORT FOR THE YEAR 1882.

Scale of Coloration from 1 to 10 indicated by figures; blank, = no indication; x, = no observation; D, = day: N, = night.

SEPTEMBER.

Day of month.	Boston.		New York.		Pittsburgh.		Baltimore.		Cincinnati.		Mayport, Fla.		Denver.		San Francisco.		St. Paul.		Chicago.		Evanston.		Lansing.		Day of month.
	Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		
	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	
1			4										3	2						3	1	2	x	x	1
2			6	1									4	1							1				2
3													2	1								1			3
4			1										5	2											4
5			3										4	2											5
6			2	3									3	1											6
7			2	3									4									2			7
8			2	1									3	2							2				8
9			2										3	3						5	2	1			9
10											1	1	5	2					3	6	3	3			10
11													3	1					0	1	2	1			11
12			2									1	4	2							2	3			12
13			2	2							1	1	2	1							1				13
14			2	2									4	1								1			14
15			4	4									3	2							1				15
16			3	4									4	1											16
17													4	2											17
18			2									1	3									2			18
19			1										4	1							1	1			19
20			3								1		3												20
21													8	2			2				2	3			21
22													4	2			2								22
23				2									4	1			2					1			23
24			1									1	3				2								24
25			2										5	2							2	2			25
26			3	2									3	1							2	2			26
27			2	4									4	1							1	2			27
28			4	3								1	3	1						x	2	4			28
29			2	5								1	2								1	3			29
30													5	2					4	1	3	2			30

OZONE REPORT FOR THE YEAR 1882.

Scale of Coloration from 1 to 10 indicated by figures; blank, = no indication; x, = *no observation;* D, = *day;* N, = *night.*

OCTOBER.

Day of Month.	Boston.		New York.		Pittsburgh.		Baltimore.		Cincinnati.		Mayport, Fla.		Denver.		San Francisco.		St. Paul.		Chicago.		Evanston.		Lansing.		Day of Month.
	Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		
	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	.	
1												2	2							3					1
2											1	3	3	2						1		1	1		2
3											1	2	3						1		2				3
4			1									1	4										1		4
5			1									1	2								2		1		5
6				3							1	1	2								1			1	6
7			1									1	2								1	1	2	2	7
8												1	2								2	1	2	3	8
9													1				2	1			2		3	2	9
10			1	1									1				2				1	2			10
11													1							1	2	3			11
12				2									1				2				2	1	1		12
13			2										2								1		2		13
14			1	3									1				2				1			2	14
15												1	2								1		1	1	15
16			2										5	2							1		2	3	16
17													6	4			2						1		17
18													5	4			2				1	1	1	1	18
19												1	3	3			2							1	19
20			2										2				2						1	1	20
21			1	2									2				2				1		1	3	21
22													2								1		3	3	22
23													1										3		23
24													2								1	2		2	24
25													2	1							1	4	2	1	25
26													1				2			4	3		2		26
27													2				2			3		1	1		27
28													1				2						2	2	28
29													1								2		3	2	29
30													3	2							2	2	1	2	30
31													2				2				1		3	1	31

OZONE REPORT FOR THE YEAR 1882.

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OZONE REPORT FOR THE YEAR 1882.

Scale of Coloration from 1 to 10 indicated by figures; blank. = no indication; x, = no observation; D, = day; N, = night.

NOVEMBER.

Day of Month.	Boston.		New York.		Pittsburgh.		Baltimore.		Cincinnati.		Maygort, Fla.		Denver.		San Francisco.		St. Paul.		Chicago.		Evanston.		Lansing.		Day of Month.
	Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		
	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D	N.	D.	N.	D.	N.	
1													1									2		1	1
2													1				2				1	3			2
3											1		1						1		2	4			3
4												4	2							3	1	2	1	3	4
5											1	3									3	4	1	3	5
6													1								1	2	1		6
7													1				2								7
8														1											8
9													1								1				9
10													1										1		10
11													2								2		1	2	11
12													1								2		2	4	12
13													1								2		3	2	13
14														1									1		14
15														1									1	2	15
16											1		2												16
17											2		2				2				1				17
18											3	1	3											2	18
19											3		2				2		1		1				19
20											2		3				2		1		1		1		20
21											2		2				2						2		21
22											1		1										2		22
23																							1		23
24																							3		24
25													1				2				2		1		25
26													1										1		26
27													1								2		1		27
28													2				2				2				28
29													2				2				2		2		29
30													2				2				1		3		30
																							4		

OZONE REPORT FOR THE YEAR 1882.

Scale of Coloration from 1 to 10 indicated by figures; blank, = no indication; x = no observation; D, = day; N, = night.

DECEMBER.

Day of Month.	Boston.		New York.		Pittsburgh.		Baltimore.		Cincinnati.		Mayport, Fla.		Denver.		San Francisco.		St. Paul.		Chicago.		Evanston.		Lansing.		Day of Month.
	Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		Thal.		
	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	D.	N.	
1	x		x				x						2										1	1	1
2													2	1		7							4	4	2
3																	2						3	3	3
4																	2						4	5	4
5													3	2									2	5	5
6												1	4	1									4	5	6
7												4					2						3	4	7
8												2		3					3				2	1	8
9													1												9
10													3	1										5	10
11												1	2	1			2			2			2	3	11
12													5	3	*										12
13													4		2	1	2						4	5	13
14													1	3	1								4	6	14
15												1	1	2	1								6	5	15
16													3	2		2							4	2	16
17														x		5							1		17
18															3	5				6		5	1		18
19											1	1				6						5	1		19
20											1				3	2					3			1	20
21																1	2							1	21
22																							1	1	22
23																1							2	5	23
24												1			3	3							2	3	24
25											1				1										25
26																							1	2	26
27															1	1			2					1	27
28															4	4								2	28
29																5							1.	4	29
30															1								4	4	30
31															1								3	4	31

*Place of observation in San Francisco changed to German Hospital.

LEPROSY IN MINNESOTA, 1869-1883.

A REPORT TO THE STATE BOARD OF HEALTH OF MINNESOTA.[1]

BY CH. GRŒNVOLD, M.D.,

Chairman of the Standing Committee of the Board on that Subject.

[1]Originally published in the *Journal of Cutaneous and Venereal Diseases*, vol. II, No. 1, 1884.

There has lately been written much about a center of leprosy in the Northwest, from where the disease is said to be spreading. It may be interesting to see how facts support this statement.

As early as in 1864, the condition of the lepers among the immigrants to the Northwest has been an object for the attention of medical men from their own country. In that year Dr. J. H. Holmboe, surgeon in charge of the Hospital for Lepers in Bergen, Norway, visited this country, to study the influence change of climate and other relations had on the development of the disease.

He found 12 cases, of which two had originated in this country, while one, who came here leprous, had got well. His impression was that their condition of health was better than it would have been if they had stayed in the old country.

In 1869–70 the settlements were again visited by a medical gentleman from the old country, the late Prof. William Bœck, of Christiania, Norway, well-known in medical literature for his writings on leprosy and syphilis. The result of his investigations in the Northwestern settlements may be read in "Nordiskt Medicinskt Archiv," Band iii., No. 1.

He found in the three States, Wisconsin, Iowa, and Minnesota, 18 cases of leprosy, all of which had come from those parts of the Norwegian Western seacoast where the disease is endemic.

Nine cases had the anæsthetic form, 3 the tubercular, while in 6 cases both forms were represented at the same time, or one superseding the other.

In regard to the time of the appearance of the disease, in 9 it commenced already in the old country, and of these, 5 had lepers in their family, while 4 did not know of any leprous relation.

In the other 9 cases the disease first commenced in this country. Of these 8 had lepers in their family, and the disease broke out respectively, 2½, 3, 3½, 5, 6, 8, 9½, and 10 years after their arrival. These 8 cases that were developed on American soil may depend upon heredity; or they may have been caused by contagion in the old country, the only place where it is possible that they could have met with other lepers; or the disease may have developed from a miasma in the old country. Either of the last two suppositions being right, the time of the incubation will for two of the cases be 9½ and 10 years. Prof. Bœck considers them all as depending upon heredity, in direct or lateral line. If he had any doubt, he says, in regard to propagation of the disease by heredity, these cases would have convinced him.

As an instance, here is one of the cases described in the above-named medical *Archiv*:

"S. S., 45 years old, came 14 years ago to America to the place where he now resides, and he was in every respect perfectly well. His father had died, about 50 years old, in the lepers' hospital at Bergen; his brother and sister died leprous in the old country, one and four years ago; his father's sister had also had the disease. S. continued to be in good health after his arrival in this country for nine and one-half years; four and one-half years ago he commenced feeling heavy and drowsy, and two years later, after a violent cold, tearing and fleeting pains announced themselves in hands and feet, and from there in the upper and lower extremities, and at the same time swelling set in in the same parts and in the face, and an eruption of red spots appeared. The pains were so violent that he was obliged to stay in bed from January to May, and when he was able to set out of bed his strength was gone, and he discovered that his sensation was much lessened along the peroneal side of the feet and legs, and on the ulnar side of hands and arms. Since that time he has always suffered from fleeting pains in the extremities, and feels heavy and drowsy. 'I will never have a day of health any more,' he says.

Sensation is at present very weak in hands and feet, as well on the outer as on the inner side, from the hands along the arms to the shoulders, and from the feet along the legs and thighs until the neighborhood of the hip. The muscles of the right hand, between the first and second finger and those of the fifth finger, are considerably wasted."

This patient left the old country in good health, and continued to be well for nine and one-half years after his arrival in this country, in a place where there were no lepers before, and where it is not known that he has had communication with any.

The last of the nine cases developed on American soil, did not know of any leprous relation, and may possibly be referred to contagion. The case is, in short, as described in the above-named *Archiv*: "B. I. is 39 years old; came to this country 14 years ago; has for 12 years suffered, and is yet suffering, from rheumatic pains in the extremities. Recently, after a day's hard work, she had, in the evening, a violent chill, and the next day there appeared spots on the arms, and successively on the lower extremities, chest, back, and face. These spots are distinctly morphea spots, in some places slightly elevated. In them there is either complete anæsthesia or very little sensation; outside of them the sensation is normal, except on the external side of the feet and legs. Her appearance is very good; she is fleshy, has good appetite, the bowels are a little constipated, menstrual flow scanty. She does not know of any leper in the family. She has once, six or seven years ago, been in the house of a leper. By others it is said that she for some time has taken care of a leper." Prof. Boeck has his doubts whether this person does not also belong to a leprous family, and the disease is then due to heredity.

The professor is of the opinion that the lepers here are better off as regards their disease than they would have been in the old country. "They have come away from the places where we see leprosy may originate spontaneously, and which certainly will favor

*Place of observation in San Francisco changed to German Hospital.

its development, when the disposition is there by heredity. They have settled on fertile lands, where they certainly have to work hard to make a living, but they, generally, never undergo hardships, as we, in Norway, understand the term. Here is no work that can be compared to the midwinter's fisheries in open sea off the Finmark coast, or the hardships suffered while tending the cattle on the high mountain plateaus, which causes so often bring out the latent leprosy."

Since Professor Boeck's visit in 1869-70, investigations have been continued in Minnesota regarding the occurrence and character of the disease in that State. At present six cases and their whereabouts are known, all immigrated from that part of Western Norway where the disease is endemic.

None of them are confined to bed, and most of them are able to perform their daily duties.

The following table will show some of the particulars of the cases:

		AGE.	HOW LONG LEPROUS	HOW LONG IN THIS COUNTRY.	FORM OF DISEASE.	LEPROUS RELATIONS.
Case I[1]...	Male.....	58 years..	18 years.....	27 years..	Anæsthetic.	Father, father's sister, brother, sister, cousin.
" II...	"	29 "	7 "	20 "	Tubercular.	Father, 2 brothers.
" III...	Female...	29 "	7 "	16 "	Do	None. (?)
" IV...	Male.....	35 "	16 "	12 "	Anæsthetic.	None.
" V...	"	67 "	Prodromata in the old country.....	17 "	Do.	"
" VI..	"	44 "	10 years.....	15 "	Do.	Probably a brother.

[1]Case No. I. is described by Prof. Boeck—his No. 1—and is the one described above as S. S. It is the only case yet alive of those he saw in Minnesota. He has, since the Professor saw him, been tolerably well until of late years, when the disease has made a quicker advance.

It will be seen that two of them have the tubercular form, while four have the anæsthetic; in two of these, IV, VI, a little complicated with the tubercular.

Two of them, IV, V, had the disease already in the old country, but one of them did not suffer much from it before seven years after the arrival to this country.

Of the other four, three know of leprous relations, while one (III) denies that the disease has ever been in her family. She is from a district where there are many lepers, Balestrand, in Sogn. The main features of the case are:

Case III came to America when she was thirteen years old, in company with a sister of her mother, sixteen years ago, and has all the time since lived near the place she first went to. The first two years she lived with her aunt, but after confirmation she served as housemaid in the families of the neighborhood until she, seven years ago, discovered the first signs of the disease. After a severe illness, she says, caused by cold, the legs swelled, and some vesicles appeared, first on one, later on both ankles, followed by sores. At present, she exhibits the tubercular form of the disease, and presents a very repulsive appearance. The complexion is pale, or rather a dirty white, the skin of the face thickened and rough. Tubercles, some suppurating, and some torn by scratching, are seen over the eyes and on other places of the forehead, on the right nostril, and on the cheeks and chin; also on the ulnar side and back of both hands, where as well as on the outside and back of the feet, and lower part of the peroneal side of the legs there is some anæsthesia. The voice is hoarse and rough. The nose seems flattened on account of the alæ spreading out. The lobes of the ears and lips, especially the upper, are very much thickened and elongated. The eyebrows and eyelashes are gone; conjunctiva a dirty white, with a troublesome secretion; cornea somewhat opaque; her eyesight is very much impaired. She denies having any discoloration of the skin, any sores or tubercles in other places than those above named, and on the ankles, where there are deep ulcers, laying the bone bare. She does not suffer much, only once in a while she feels a little oppression and some slight pain in the chest and back, but this, she believes, is only caused by weakness. Appetite is irregular; the sleep is commonly good. Menses commenced being scanty when the disease broke out, and stopped soon. She feels worse spring and fall, but is seldom confined to bed. She takes cold easily. Like almost all lepers here, she ascribes her disease to cold. "She suffered so from cold," she explains, "in a place where she was working, that she, then and there, got the disease." It is not known by herself, or anybody else, that she ever met with a leper in this country.

She must have carried the germ of the disease with her from the old country, whether it has been communicated by contagion or miasma, if she is right in her statement that the disease has been neither in her father's nor mother's family. The disease became evident when she was 22 years old, and had lived in this country nine years. She will not remember any prodromes; has probably tried to conceal her condition as long as possible. She tries yet to put the best appearance to her miserable condition.

Ten lepers of the immigrants are known to have died in Minnesota since the settlement of the country, all of them males. Of these, seven have died in the last seven years, and the following table will show some of the particulars of the cases:

	AGE AT TIME OF DEATH.	HOW LONG LEPROUS.	HOW LONG IN AMERICA.	FORM OF THE DISEASE.	LEPROUS RELATIONS.
Case I.....	49 years.....	24 years.....	19 years.....	Anæsthetic	Brother of mother's father.
" II.....	56 "	14 "	24 "	Tubercular.....	A cousin.
" III.....	"	"	"	Anæsthetic	Father's brother.
" IV.....	35 About 30 years.....	10 "	9 "	Tubercular.....	Brother's father and bro. diseased
" V.....	" 30 "	3 "	13 "	Do.	Do.
" VI.....	62 "	12 "	15 "	Tuberc. first seven years, afterwards anæsthetic; disease stopped before death.	Brother and father's brother.
" VII...	30 years.....	30 "	21 "		Mother's brother.
			10 "		

It will be seen that three of them had the anæsthetic form, and died 24, 10 and 30 years after they got the disease. The last case, No. VI., Boeck's observation 2, is an instance of one form changing into the other; the disease commenced in the tubercular form, and continued so for 7 years; after a violent fever it changed into the anæsthetic. Three had the tubercular form, and died after having had the disease 14, 3 and 12 years. Case II. got the disease 10 years after his arrival in this country, when he was 42 years old.

All of them had lepers in their family; three of them had the disease in the old country; three got it here—two, ten years, and one three years after their arrival.

Four of the lepers—two of them living yet—have full-grown children born in America; two have full-grown grand-children. One, No. VI. of last table—Boeck's observ. No. 2—has fifteen grand-children, aged from 2 to 22, and two great grand-children, and in none of them has any sign of the disease been discovered. The other, No. I. of the first table—Boeck observ. No. 1—who belongs to a family strongly infected with lepers—his father and father's sister, his brother and his sister were lepers—has full-grown children and many grand-children of an age up to 17, all in good health.

The suggestion of the above facts, as far as they go, seems to be that the disease is not so easily acquired here in the Northwest as in the old country, be it by heredity or contagion. The dry climate is, possibly, not so favorable for the development and the communication of the disease, that at present mostly belongs to the sea-coasts and islands. The chances of contagion are decidedly less here than in the old country; there is greater cleanliness, as a consequence of the greater economical prosperity, and the new-built houses of the first settlers in a new country furnish no filthy nests for contagion.

But, once acquired, the disease seems to run in regular course without abatement.

[1] Cases II and VI. were seen by Prof. Beock in 1870, and described by him in the above-named journal, as observations 3 and 2. Case II got steadily worse until death, 8 years after the professor saw him, but in No. VI. the disease made no advance years before his death, which occurred 30 years after he was attacked, 7 years after Prof. B. saw him, and described his case. He was, in the last years of his life, since Prof. Boeck's visit, in good health, with the exception of the anæsthesia in the already attacked places, and an always open and discharging ulcer under one foot When this discharge stopped, about 14 days before his death, vomiting set in, which became more and more distressing, so he could keep nothing in his stomach. He was not confined to bed, but moved about as usual, until just before death.

A CASE OF SUPPOSED MALIGNANT DISEASE OF THE UTERUS TREATED BY IODOFORM.

BY I. W. FISKE, M.D., KALAMAZOO, MICH.

[Read before the Kalamazoo Academy of Medicine, January 29, 1884.]

About three and a half years since I was called to see Mrs. H., who had been suffering for some time with some uterine trouble. She came here from Ionia, where she had had removed some time previous a portion of the external os uteri for supposed malignant disease. I found the uterus somewhat enlarged, with the inside roughened and uneven. She was suffering from considerable pain at this time. Some physician in Grand Rapids had applied pure nitric acid to the internal part of the organ. I applied iodized phenol to the inside and hot water injections, and also used electricity, passing the current through the pelvis, and also applying one pole to the os and the other to the lower part of the spine, and always with relief. After about two months' treatment the inside became smooth, pain was relieved, uterus was lessened in size, and she was enabled to return to her business, which was that of dress-making.

She continued in comparative good health for some months, when the pain again returned, and after some little time was obliged to give up work, and I was called again. I found the uterus very much enlarged and elongated; very hard, with an ichorous or fœtid discharge. In fact the organ felt hard like bone. The disease was confined wholly to the uterus. I again used the former treatment, with medicine to relieve pain. After treating her awhile with no apparent change, except that the uterus continued to enlarge so as to almost fill the lower pelvis, I prescribed suppositories of iodoform, hyoacysmus and conium—five grains of the former with two grains each of the latter These were to be applied direct to the uterus night and morning. My sus-

picions being aroused with the idea that I had to deal with malignant disease, I called Dr. H. O. Hitchcock in consultation. After a thorough examination of the case he confirmed my diagnosis, and advised the continuance of the treatment. Some little time after the doctor again saw the case with me. After a second examination his former opinion was only the more thoroughly confirmed. Dr. Osborne then saw the case (he having had a case of schirrhus some time previous) and he pronounced it an undoubted case of malignant disease. I continued to persevere with the iodoform treatment, and after about three months the uterus began to soften, became less painful, and after using the treatment about six months the uterus became normal in appearance, the patient entirely relieved of pain, and she was enabled to return to her work. One year ago last fall she returned to her home, and has been comparatively well ever since.

From the successful outcome of the case I was led to the conclusion that we were all mistaken as to the diagnosis. Some time last winter I received a paper from Dr. Cutter, of Boston, on the uses of iodoform, in which he gives the history of three cases of what he pronounced malignant disease of the uterus, but by the use of iodoform, topically applied, the disease had finally disappeared. He used gr. xv of the iodoform in each suppository. The patients had remained well up to the time of his article. He also added that if the patients had died there would have been no doubt but that the cause of death was malignant disease of the uterus.

I have thus given a brief history of the above case from recollection, as I kept no record of the case, simply to elicit any experience any of you may have had in the above treatment in such cases, and to ask the question: "What effect, if any, has iodoform upon malignant disease of the uterus?"

MEDICAL PROGRESS.

MEDICINE.

ZOÖGLEIC TUBERCULOSIS (A FORM OR SPECIES OF TUBERCULOSIS WITHOUT BACILLI.—Malassez and Vignol have published in the *Archives de Physiologie*, with illustrations, an article which gives the result of their investigations in the laboratory of histology in the College of France, which embrace the following conclusions:

1. There exist tubercular lesions which do not present bacilli, and which inoculated can give rise to tuberculoses equally without bacilli, and at the same time resembling bacillary tuberculoses. The same results obtain, with their products of culture. If then the presence of bacilli is sufficient, according to Koch, to characterize the tuberculous nature of a lesion, the converse is not exact; or, in other words, their absence is not sufficient to negative the tuberculous nature of a lesion.

2. Among these tuberculoses of inoculation without bacilli, there are some which are characterized by the presence of zoögleic masses of micrococci, which, in the tissues which they infect, play the part of phlogogenic foreign bodies, and also produce there the so-called tuberculous lesions. These tuberculoses then should be designated by a special name—that, for example, of zoögleic.

3. There are also other tuberculoses of inoculation, non-bacillary, in which distinct zoögleiæ cannot be distinguished. They appear to be due to the same species of micrococci with those in the zoögleic masses; but, in lieu of being crowded into groups, they are disseminated in the tissue of granulation, and it is on account of this dissemination that, in the absence of a special coloring reagent, they are not sufficiently defined. As a proof of this, they can by inoculation engender the zoögleic tuberculoses.

4. These same non-bacillary tuberculoses, with or without distinct zoogleiæ, may produce after a varying number of generations of inocculation, bacillary tuberculoses; as if the zoögliæ, the micrococi diffused, and the bacilli were simply different forms, or states of development, of the same micro-organism. However, as this transformation of the zoögloeiæ into bacilli has not been directly observed, we have no right to declare them as of the same nature, whilst the hypothesis is a justifiable one.

5. Whilst these zoögleiæ and micrococci do not bear an exact resemblance to the parasites previously described by Klebs, Aufrecht, and Toussaint, it would seem as if there was a certain relation between them, but the facts observed do not decide the question.

EXPERIMENTS ON POISONING BY THE BACILLI OF THE MACERATION OF JEQUIRITY.—M. de Wecker having demonstrated the production of inflammation of the conjunctiva, as a means of curing rebellious ophthalmia by the use of this drug; and M. Sattler having determined that its active principle was due to the presence of a characteristic bacillus, MM. V. Cornil and A. Berlioz have conducted a series of experiments (*Archives de Physiologie*) on the mode of action of this substance when absorbed—through the lymphatics or by the blood. Their experiments were conducted on the guinea pig, rabbit, and frog, and are summarized as follows:

1. The action of the bacillus of jequirity when absorbed, and after having penetrated into the animal organism, varies according to the mode of its introduction, and the species of animal.

2. Whilst the local action of the microbes of jequirity on the conjunctival mucous membrane reacts but slightly on the general health, and gives therapeutic results in serious ophthalmia, their introduction into the lymph and blood produces general symptoms followed by death in the guinea pig, rabbit, frog, and fishes.

3. The subcutaneous injection into the cellular tissue of a cubic half-centimer of a weak infusion, produces an inflammatory œdema and lesions that are generally followed by death. If the dose be very small, the more or less extensive œdema terminates in a phlegmon and gangrene, and confers upon the inoculated animal an immunity against the subsequent injection of strong doses.

Injections into the peritonæum and pleuræ of rabbits of ¼ to ½ of a cubic centimer of the decoction of jequirity produced a peirtonitis and a fibrinous pleurisy, followed by death with general lesions. The living microbes were found in the sero-purulent exudation which characterizes these inflammations. These micro-organisms might penetrate into the blood and cause, through the obliteration of certain vascular territories of the liver, an infarctus with necrosis of the hepatic cells.

5. The injection of from two to three cubic centimeters of the decoction of jequirity into the veins of the ear of the rabbit is followed by death in a few hours. The bacilli of jequirity are eliminated through the stools and urine one or two hours after injection. The injection of two to three drops of the same decoction in the veins of the rabbit causes death in twenty-four hours.

6. In a general way the bacteria of jequirity live, reproduce themselves, and disseminate through the blood of cold-blooded animals (frogs, fishes) with an activity that is incomparably greater than in the blood of the smaller mammalia. With the frog, let the dose be large (½ cubic centimeter) or small (2 drops), by its introduction into the dorsal lymphatic sac, or the peritonæum, death follows with a colossal quantity of living, moving bacilli in the blood, the lymph, and the serous cavities. While their number in the blood is comparable to that observed in charbon, there is also an elimination of the microbes by the urine. The capillaries of all the organs are more or less filled, but the cellules of the parenchymatous organs, the liver, kidney, glands; the proper elements of the connective, muscular, cartilaginous and other tissues, do not undergo any pathological modification, a fact which also increases the similarity of this infectious disease with that of acute charbon. It appears, like the charbon bacteria, to produce death by depriving the blood globules of their oxygen.

7. The blood of a frog so intoxicated has itself become septic. The subcutaneous inoculation of a portion of that blood produces a special septicæmic condition, with subcutaneous œdema, ecchymoses, etc., followed by death, which takes place in a few days. The lymph and blood are filled with bacilli, almost as numerous as when the maceration of jequirity is used; all the vessels are filled without producing thromboses. The secretions also contain bacilli which are eliminated in this way. The parenchymatous cellules are not generally altered in any marked degree.

Pulmonary Syphilis.—Professor de Renzi (de Naples) has an extended article on this subject in the *Revista Clinica e Terapeutica*, a translation of which is given in *La France Médicale*. He declares:

1. Syphilis of the lung may be hereditary or acquired. The last, which I have observed the most frequently, is not so rare as might be supposed. In a number of cases a diagnosis of phthisis pulmonalis has been made.

2. The development is favored by debility, acute catarrh of the respiratory passages, larynx, trachea or bronchi, and chronic catarrh of the same organs. These catarrhs may cause the pulmonary localization even in an apparently robust condition.

3. There are no special and characteristic phenomena. All the symptomatic and progressive peculiarities found in syphilis are also to be found in the pulmonary tuberculosis.

4. To distinguish between these two diseases we have the following symptoms:

(*a*) Absence of the tubercular bacilli in the sputa.

(*b*) Efficacy of the anti-syphilitic treatment, which produces a rapid relief, and even a cure, where syphilis is the cause. In the cases of failure of treatment the diagnosis is uncertain. This criterion remains doubtful with the iodine treatment, but with mercury a positive effect is rapidly produced.

(*c*) The existence of other syphilitic lesions, and particularly syphilitic ulcerations of the larynx.

(*d*) Syphilitic antecedents, dating from a remote period of five years or longer.

The last two arguments are less decisive than the first two, for a syphilitic is exposed to attacks of pulmonary tuberculosis.

5. Iodine and iodide of potassium act against pulmonary syphilis. Iodine may be given without fear in doubtful cases, for experiments made upon animals and clinical observations demonstrate that it retards, and, up to a certain point, prevents the development of tuberculosis. But mercury is more efficacious and deserves the preference.

SURGERY.

On Nerve-Stretching for the Relief or Cure of Pain.—Mr. John Marshall, as President of the Royal College of Surgeons, delivered the "Bradshawe" lecture on December 6, taking this subject for his theme (*Lancet*). He formalarized in a very satisfactory manner what is known to-day upon the subject. The first question is: Can a nerve be stretched? in reply, he demonstrated this stretching by the use of a 4 lb. weight, applied to a nerve and a piece of tendon by contrast; deciding the nerve to be not so extensible as an artery, but a little more extensible than a tendon. The nerves nearer the spinal cord are more extensible than those at a distance; the nerves of the upper limb than those of the lower; the longer the nerve the greater is its elasticity.

Secondly, the recoil of the nerve. According to one observer, a nerve stretched one-twenty-fourth of it length, recoiled to within one-fortieth of its original length.

How much weight will a nerve bear? The table of weights borne vary from six pounds for the supra-orbital to 288 pounds for the great sciatic. As a mean he considers 180 pounds to be the weight that the sciatic nerve will bear; recognizing the great difference between a dead and living nerve in this respect.

The effect of stretching upon the nerve structure. Illustrations given show the changing of the wavy

nerve lines to straight and paraliel ones, the epineurai fibers, perineurium, and tubules are all stretched into straight lines, the fasciculi appear compressed, and the lymphatic space is obliterated. The natural regmentation seems to give way to an abnormal or irregular breaking up of the medullary sheath; sometimes the tubuli break, and still more rarely the axis-cylinder gives way. These anatomical changes are followed by degenerations; the sheath becomes infiltrated and hyperæmie, charged with little ecchymoses and larger hæmorrhages, degenerative changes are rapidly set up in the tubules themselves, the fine nerve tubule melts away, the axis-cylinder is broken across, the medullary matter escapes in the form of oil globules, and the whole mass of nerve becomes disintegrated, and subject to soft atrophic changes. Then restorative changes follow in the living nerve.

The physiological results of nerve-stretching are: To diminish motor properties and sensory functions, the latter more markedly, including not only that of common touch, but the sense of temperature, and the sense of pressure. Irritability is at first increased, then gradually diminishes and is finally extinguished; to gradually diminish reflex function.

Are the mechanical effects of nerve-pulling transmitted on to the spinal cord? Practically not,—the stretching effects pass to the sciatic plexus, to the roots of the nerves, where it must disturb the spinal ganglia on the posterior roots, and it must disturb the dura mater; hence it may disturb the cord a little through the ligamentum denticulatum on either side; but there is no change of tension in the intra-spinal or intra-meningeal part of the nerve, and no movement in the cord.

The therapeutic value of this procedure is shown in tables given of 252 cases of nerve-stretching in various diseases; a proper discussion of these tables gives certainly sufficient encouragement to the belief that nerve-stretching is not only available for the cure of *inveterate neuralgia*, but also for the amelioration of *tabes*. In cases of neuralgia a great proportion are due to irritation of the *nervi nervorum*, that is, fibres which come from the nerve itself to supply the epineurium and perineurium—this action of stretching paralyzes them. As to tabetic pains, here we have changes in the posterior roots and spinal cord, but it is a disease of the conductors, rather than of the receivers, of nervous impressions; the grey matter undergoes changes, but the white matter is more conspicuously affected. Now, while the nerve-stretching has been shown not go in its effects beyond the roots of the nerves in the sheaths of the dura mater, there it affects the ganglia, there it produces an excitation of the vasi-motor centers or trophic centers; and to the reaction that takes place and the changes induced in the nerve elements in consequence of that, we must look for the benefit obtained in cases of tabes dorsalis, or locomotor ataxy.

The operation consists in exposing the nerve, lifting it either with a hook or with the finger, and stretching it to a certain point. To what extent may we stretch? By translating the tabular conclusions in their application to *disease*, the conclusion is reached that no sciatic nerve should ever be stretched by a greater weight than between 30 and 40 pounds. By pulling upon a dynamometer, a very strong man, pulling with both hands, can only pull up to about 80, 90, or 100 pounds. But if you pull as you would pull a nerve, you will find that 30 pounds is about the limit of your pull. Taking then the limit of 30 pounds for the sciatic nerve, of course this would be graduated downwards for smaller and smaller nerves. The fingers prove to be the only suitable instruments for stretching. Surgeons should educate their feeling of resistance, so as to be able safely and adequately to stretch a nerve, adequately in order to cure, safely so as not to injure the patient. The nerve yields sensibly to your traction; you feel an internal creeping movement in the particles of the nerve—of the sheath, no doubt; you feel a certain attrition and vibration going on; and you must educate yourselves to that and you will be safe.

As to the mode of pulling, and how long that pull should last, a continuous stretch of five minutes is considered as sufficient; stretch both ways for neuralgia. Stintzing says stretch downwards for tabes, upwards for neuralgia.

The cutting operation is not the only way of stretching nerves—in the case of the sciatic, by bending the thigh upon the body, so that the knee comes up to the chin, then straightening the leg upon the thigh and flexing the foot upon the leg so as to stretch the ankle joint also, the sciatic nerve, as proved on the dead body by Trombetta, can be stretched one inch. This mode has produced relief in four cases of tabes dorsalis. The use of Sayres' apparatus for suspending the body, and the consequent elongation of the body from an inch to two inches and a quarter, led Motschutkowski to experiment, finding the spine elongated to seven-eighths of an inch, although the membranes moved, he was not sure of more than a slight degree of tension on the posterior nerves. He applied this to fifteen cases of locomotor ataxy, for ten minutes at a time three times a week, succeeding in thirteen cases in relieving the pains and abnormal sensations.

The dangers are comparatively few. There are undoubtedly three or four cases where the death may be attributed to disease of the spinal cord, set up by nerve-stretching.

THE first number of the *Archives of Pediatrics* has appeared, and presents a very creditable make up. It is well printed, on good paper and in a very convenient form for reading. It contains two original articles, one by Dr. Wm. T. Plant, on Convulsions in Children, and one by Dr. D. C. Cocks, on Fifteen Cases of Tracheotomy; a clinical lecture by Dr. Louis Stair, on Chronic Gastro-Intestinal Catarrh in Children; clinical memoranda by Dr. Wm. P. Northrup, on a case of Expiratory Dyspnœa from Enlarged Bronchial Glands in a Case of General Tuberculosis and Empyema. The translations and abstracts are quite full and well selected. The editor is Dr. William Perry Watson, Jersey City, N. J.

THE

Journal of American Medical Association.

PUBLISHED WEEKLY.

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information, should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

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Address

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No. 65 RANDOLPH STREET,
CHICAGO, ILLINOIS

SATURDAY, FEBRUARY 16, 1884.

THE NEW MEDICAL LAW OF VIRGINIA.—An act for regulating the practice of medicine in the State of Virginia has very recently passed both branches of the Legislature, received the approval of the Governor, and therefore become a law. A letter from one of the most eminent members of the profession in that State gives the more important features of the act as follows:

"Let it now suffice to state that it requires all applicants, including graduates of any and every medical school, to undergo an examination before a Licensing Board, which shall consist of men learned in medicine and surgery, and shall be appointed by the Governor from a list of names to be recommended by the Medical Society of Virginia. This Society is composed of the best elements of the profession in our State, zealous for the best interests of the profession, and completely independent of the medical schools in the State, whose graduates will be required to undergo the same examination as other applicants. This system has worked well in Alabama, where most of the rejected applicants have been graduates of legally established medical schools. I have always thought that whatever might be the influence of the example of a few exceptional schools, there could be no general reform until there was an entire divorce of the schools and the licensing authorities."

We congratulate our Virginia brethren on having a law for regulating the practice of medicine that does not nullify itself by recognizing a diploma from every institution called a medical college as sufficient evidence of fitness on the part of its possessor to practice medicine. There are three, and perhaps only three, legitimate objects to be accomplished by legislative enactments for regulating the education and practice of the medical profession. The first is, to define what shall constitute the minimum of attainments necessary to constitute an adequate medical education. This would necessarily include the general education needed to qualify one to enter upon the study of medicine, as well as the minimum length of time and opportunities required in the gaining of strictly medical knowledge. The second is the establishment and maintenance of an adequate State Board of Examiners, for thoroughly examining, both theoretically and practically, all applicants for admission to the practice of medicine. In other words, establish a competent tribunal to ascertain and enforce the standard of education required. The third should consist of a simple provision by which the certificates of similar boards in other States should be recognized, so as to maintain a comity of rights and interests between the States.

A NEW STATE MEDICAL SOCIETY IN NEW YORK.—We learn through a correspondent in Albany, N. Y., that at the annual meeting of the old Medical Society of the State of New York, the friends of the National Code of Ethics and of the maintenance of harmonious relations with the National Association and the social organizations of other States, were not numerous enough to reverse the action of the Society taken at the two preceding annual meetings.

They consequently withdrew in a body, and proceeded to organize a new State Medical Society, which is to hold its first regular annual meeting in New York City in November next. A new County Medical Association was organized in New York county two or three weeks since. The work of reorganizing thus begun will doubtless go on until the great mass of the profession in that State are again represented in the National Association, and are placed in harmony with the profession in the other States.

A NATIONAL PHARMACOPŒIA.—The bill introduced into the House of Representatives, at Washington, for framing and publishing a pharmacopœia of true national character, a copy of which was published in this journal for January 26, is making favorable progress in the Committee of Ways and Means, to which it was referred, and is strongly recommended by several of the more influential medical journals. We again ask that all our readers who approve the measure, shall lose no time in exerting their legitimate influence with members of Congress from their

respective districts in favor of the early passage of the bill. For other medical matters before Congress we refer to our correspondence from Washington, in another part of the JOURNAL.

A HINT.—Dr. Clevenger, of this city, suggests as a ready means of ascertaining the existence and location of small abrasions, needing a touch of the caustic before holding a post-mortem examination, the holding of the hands over strong aqua ammonia for a moment, when the smarting will quickly reveal all the sensitive or abraded places, however minute.

CORRECTIONS.—In the list of those who attended the meeting of the Association at Cleveland, as furnished by the Secretary and published in the last number of the first volume of the JOURNAL, the name of J. W. Hoff, M.D., of Pomeroy, Ohio, appears in the list of members by invitation. The Secretary informs us that it should have appeared as a delegate from the Meigs County Medical Society.

SOCIETY PROCEEDINGS.

The Chicago Medical Society held its semi-monthly meeting on the evening of February 4, 1884. After the usual routine of business had been transacted—election of new members, etc., Dr. S. V. Clevenger gave a report of a case of "Paretic Dementia in a Female," in which there existed peculiarities to justify us in giving a synopsis of it for publication:

Kate M., æt. 37; Irish; married, was admitted to the Cook County Insane Asylum April 12, 1883. Very intemperate before insanity was noticed by friends. October, 1881, furor appeared and lasted three weeks. She remained in St. Joseph's Hospital (this city) till mania abated, when a remission occurred, lasting till December 25, 1881, when (as her family state) she had "cramps" which lasted a week. She was then sent to Detroit, Michigan, State Retreat, where she remained until the latter part of July, 1882. Little was elicited concerning her last remission, except that she was errabund. The first remission, friends claim, was complete. Just prior to admission into the Cook County Asylum, delusions of persecution were observed. Exhibited marked paretic symptoms; tremulous oral and lingual muscles from the date of admission. Speech drawling, tremulous; feels extremely well satisfied; had unsystematized delusions of grandeur; gave little or no trouble till August 30, 1883, when hemiplegia followed a convulsion, and next day she died without having been roused from stupor. It was ascertained that her father had died of consumption of the bowels, and that her mother, at the age of 60, died paralyzed; also that this patient had never borne children, nor had she ever menstruated. Any hereditary predisposition denied. Necropsy eight hours after death. Uterus very small; resembling that of a child of sixteen; left ovary atrophied. Os tiucæ imperforate; vagina patulous and large; a third nipple well developed below left breast. The brain weighed 39 ounces after preparation in solutions for microscopical examination, hence weights as here given have a relative value only. (The author is skeptical as to any importance attaching to absolute brain weights, and of late years will often omit weighing until the tissue is hardened). Cerebellum weighed 4¾ ounces. Each hemisphere weighed within a few grains of 16⅜ ounces; the left side then can be considered under weight. Cholesterin abundant, especially in occipito-basilar regions. Right antero-posterior diameter of medulla slightly less than left. Isthmus weighed an ounce; vermis of cerebellum warped toward left side, causing left aspect of the organ to appear larger than that of the right. Cortex did not pull off with pia mater loose from medullary substance, as noted in some cases by Spitzka, but in many parts of parietal and occipital regions the pial adhesions were sufficient to bring away the outer layers of cortex, imparting the ragged, ulcerated appearance to which Rindfleisch called attention. Heterotopia found in anterior parietal region. Cortical pial adhesions occurred in the lowest extremity of right occipital lobe, with connective tissue proliferations filling widened sulci.

This condition was extreme at base of first frontal convolutions on both sides. Fibrous trabeculæ, clubbed and twisted, extended downward from pia mater, covering four to five square inches, filling interstices left by shrunken gyri and atrophied gray substance. In the white substance, external to the right lobulus cuneus, a cone-shaped area of yellow softening, with apex curved forward, was found, measuring one inch in length, tapering from three lines in diameter, It was apparently the colloidal necrobiosis of a thrombosed terminal branch of the posterior cerebral artery. The gelatinous contents of the cone were mixed with detritus of the degenerated blood-vessel. Sections microscopically examined afforded views of kinked and distorted vascular channels, often twisted glomerularly. Knobbed vessels were frequent, and perivascular spaces more so, some clear, others dotted with granular masses. Evidence of capillary stasis, general and decided, while dark bodies, resembling embryo connective tissue corpuscles, abounded. No well-defined Meynert "spider-shaped cells" were discovered. The ganglionic elements were shrunken and their processes illy defined. A few large nerve cells, with granule contents, were observed lying in clear spaces, as though contracted from areas they once filled. Sclerosed patches abounded in the sections examined. With the exception of the lesions in the bregmatic region, the post-Rolandic parts were mainly involved. The ventricular endyma was nodulated in parts, affording Spitzka's "ground glass" appearance. Comparatively few healthy ganglionic bodies were discerned in over a hundred sections taken from different parts of the cerebrum.

Remarks.—The frequency of paretic dementia occurring among women, as compared with its occur-

rence among men. We have investigated thirty-nine different authorities, and have calculated the average proportion to be about one to eight. This includes Kiernan's cases. Neumann[1], from not having seen a single case, denied the existence of paretic dementia among females. Sankey[2] inclines to the belief that sexual excess plays a part in the production of the disease, but the cases he cited show that there were, in addition to the sexual excesses, great vicissitudes.

Dickson[1] favors the views offered by some writers, viz.: the liability, etc., but considers emotional mental strain as the great cause.

Luys[2] says that in existing social conditions the males lead a much more active life than the females, and they are more subject to mental and emotional overstrain than females. Dr. Clevenger thinks the emotions preponderate in women, and even though carefully housed and cared for, every woman has to bear, at certain periods, considerable tension of feeling, more probably in proportion to her possession of other mental qualities which confer endurance.

Some authors state the affection among the rural classes is markedly less frequent in females than is the case among the civic population, and is much more frequent with the hand-to-mouth, the trading and speculative classes, where the wife (Kiernan) takes an active part in her husband's business, than among the classes where she is confined at home. There is a marked relationship between the menopause and paretic dementia, as some writers have stated. There is a mental disturbance at this period predisposing to the psychosis. The prevalent type is the quiet form, which may account for the infrequency of its observation, and it is rarely met with among the female Irish in the South of Ireland.

In the discussion, Dr. J. G. Kiernan stated that, even admitting females to be more emotional than males, as they are confined to their household duties, which are more monotonous than the male class of a speculative nature, the percentage of cases among them is one to every six or eight males. In France there is a middle class (the bourgeoisie) where a wife takes an active part in her husband's business, and paretic dementia occurs in them. Regarding the ætiology, so far as alcoholic excesses go, statistics are worthless. In 160 cases reported 116 were intemperate, but this is a symptom of the affection instead of a cause. In British Guiana, where the people indulge in excesses of a sexual nature as well as the alcoholic, and also where syphilis prevails to a considerable extent, the disease is unknown, although at Berbes, where the asylum is located in British Guiana, the superintendent reported one case, that of a male who came there from Europe, who was afflicted with the malady ere he came to Berbes.

Some French authors state that syphilis is not a predisposing cause, whilst Dr. Clevenger thinks paresis is very largely due to inherited or acquired syphilis.

Dr. R. Tilley thought if emotional strain had anything to do as a cause of this debility, that a Board of Trade speculator was much more apt to have it than a mechanic who gets his pay regularly, and yet, in the large portion constituting this category (the Board of Trade), we scarcely ever hear of their being subject to it.

Dr. Kiernan stated he had no doubt that this theory is true. The easy-going (Celts) class in Ireland do not have it, as may be illustrated by their not worrying as to how to prosper. In this city the emotional strain is great on those living from hand to mouth, and they furnish the largest proportion who have this trouble, while Jessen, a Scandinavian alienist, traced all cases to congenital or acquired syphilis.

This topic being concluded, Dr. Henry J. Reynolds read, by request, a paper on The Treatment of Urethral Strictures. (See this paper published in the JOURNAL of February 2, 1884, pp. 113 to 116, to which the reader is kindly referred). A number o the gentlemen participated in the discussion that fol lowed.

Dr. W. L. Axford was much interested in the remarks embodied in the paper just read, and said the author took the extreme views as those advanced by Dr. Otis, of New York, and that the advances in urethral surgery to-day are due principally to Otis. In strictures of large caliber, the best way to treat them is to cut them, as there is but little risk in doing so. In some cases of stricture of traumatic origin, this method is hardly admissible, and Symes' operation is then preferable — external perineal urethrotomy. The value of the acorn sound is more reliable to determine a stricture than that of the urethrometer; but to use the acorn instrument, the meatus may have to be incised. I want to ask the writer if he thinks in all cases of gleet there is stricture? Answered, yes. Then in all cases of stricture is there gleet? Answered, no.

Dr. C. E. Webster cited briefly a number of cases of stricture of large caliber he had seen operated upon. The first being one in the first stage of pneumonia, subsequently died of the lung trouble. The second case, that of organic disease of the heart, who died of the heart affection, and a third case operated on having Potts' Disease. None of these patients were benefited by the operation. The same surgeon, who is a teacher in a well-known school, operated for phymosis in a case of bow-leg, expecting thereby to relieve this deformity, as no other treatment for the bow-legs was recommended; then the following two questions were asked the reader of the paper:

First, whether he would operate upon a stricture of large caliber if no local symptoms were present? and secondly, whether acorn sounds of large size, which pass by dilating the urethra, may not indicate a stricture where the condition is not pathological, but simply due to a varying degre of elasticity along the tract of a healthy organ.

Dr. C. T. Fenn gave his experience as a physician (more than that of a surgeon) in introducing the finest sound, by reciting a case that not long since had been under his care. One of our well known surgeons also saw the case with him, in consultation, but in his essaying to pass the smallest steel sound,

[1] Lehrbuch der Psychiatrie, 1859.
[2] Lectures on Mental Disease.

[1] Medicine in Relation to Mind.
[2] Maladies Mentales.

had failed, and then resorted to aspiration of the bladder over the pubes. I had previously, however, introduced a filiform bougie, and the passage was effected by "passing it around" the stricture, as was determined at the autopsy, when the stricture was dissected, and found to be "fibrous," and in connection with it there was infiltration of urine, which caused death. The speaker did not agree with the author of the paper, in wanting to operate on so many of this class of cases, and thought the operation should be approached with no little amount of temerity, as the dark urethral channel could not be seen whilst operating upon it.

Dr. R. Tilley asked the reader why he thought it was necessary, in his cases, to render the urine alkaline before operating? and why this is better than the normal urine, which is but slightly acid? Normal urine, as he believes, is practically innocuous to wounds.

Dr. G. C. Paoli's experience and observation warranted his saying that only temporary benefit was derived from cutting operations, and that we should be very careful in making these incisions. Exudation takes place in two or three years, at longest. He has treated between 500 and 600 cases of stricture of the urethra by gradual dilatation. His patients were satisfied with this continual method, and all were successful, so far as he knew, without the cutting, and he believes we should attain the object by the method of gradual dilatation, and that it is far preferable. He then gave a history of a case which was operated on thirty-four years ago in Cincinnati. There was considerable hæmorrhage at the time. Temporary success followed, but in a short time the caliber of the canal became lessened and indurated. Every fortnight for a long period of time he passes a No. 8 or 9 Otis curve sound.

Dr. L. H. Montgomery thought stricture in the male a cause of sterility, and that the power of propagation was in many instances lessened by it, and inquired of any or all of the members what their ideas about this are? and also of the writer, how long he required a patient to take an alkali before the urine became alkaline? and if bicarb. of soda in 3ss doses is not superior to the citrate of potash to render urine alkaline?

Dr. D. W. Graham said that one of our eminent men in this city stated long ago he thought a previous attack of gonorrhœa would cause sterility in the male. The gentleman now having the floor opined that to cut a stricture is malpractice—and further than this, to cut what is revealed by an acorn sound he regarded also to be malpractice.

Dr. Reynolds, in closing, said he thought it was essentially necessary to dilute the urine, to do so, a patient will not void it so frequently, and in cystic irritation it should be rendered alkaline. In answer to Dr. Webster, he thought the condition to which he alluded would be extremely rare so far as relates to his second question, and regarding his first question, a patient would not know he had stricture unless local symptoms presented. For then a patient will consult us, and I probably should then advise an operation. Regarding one speaker's interrogatory about stricture being a cause of sterility, I think this is not the case, also that the bicarb. of soda or potash, given for two or three days, is equally as good as the citrate of potash to produce alkalinity of the urine.

The resignation of Dr. D. F. McPherson was accepted, on account of his removing to Buffalo, N. Y

The Society adjourned at a late hour.

L. H. M.

DOMESTIC CORRESPONDENCE.

FROM WASHINGTON.

The following bills of medical interest have been introduced in Congress:

January 7.—By Mr. Ellis, H. R., 2211. To construct, maintain, and support a floating ward or hospital in connection with the United States Marine Hospital at New Orleans. This bill appropriates $30,000 for this purpose, and is to be for the reception, treatment, and maintenance of all United States Marine Hospital patients, and of foreign sailors admitted thereto, suffering from contagious or infectious diseases. It is to be moored in the stream of the Mississippi River, to be properly isolated, and served by a suitable steam launch, purchased for the purpose out of the balance of the appropriation.

January 7.—By Mr. King, H. R., 2219. To investigate the origin and spread of charbon in animals. This bill appropriates $5,000, to be expended under the direction of the Commissioner of Agriculture.

On January 15, a resolution was introduced in the House by Mr. Green, of North Carolina, to authorize the Committee on Public Health to employ chemical and medical experts, and to make a thorough investigation into the adulterations of food, drink, and medicine, and report thereon. The resolution was referred to the Committee on Public Health.

We have already given on page 23, vol. 2, of this journal, the text of the bill now before Congress, to provide for suitable accommodations for the Medical Museum and Library of the Surgeon-General's Office, U. S. A., but the matter is of so much importance that we take the opportunity of referring to it again, by calling attention to Ex. Doc., No. 12, Senate, 48th Congress, 1st session, which is the official title to an illustrated pamphlet embodying the views of some of our prominent medical men, the resolutions of the American Medical Association, the reports of the Committee on Public Buildings and Grounds, and the detailed argument of the late Surgeon-General Barnes, setting forth the urgent necessity for the proper care of the Museum and Library. Three large-sized illustrations give the details of the proposed structure, which, if adopted, will be a handsome, commodious and convenient building. This is a public document, accessible to all, free of charge, through their members of Congress, and should receive wide circulation; as all who read it will be convinced of the importance of adding what political influence they may be able to exert in favor of the project. We say political influence, for though it

may be a distasteful expression to many medical men, it is the most comprehensive term to apply to the situation.

January 8.—Mr. Randall introduced a bill, H. R., 2697. To prepare and publish a National Pharmacopœia for the United States. It requires the detail, as soon as practicable, of two officers of the Marine Hospital Service, of two officers of the medical staff of the Army, and two officers of the medical staff of the Navy, for the duty of compiling and preparing a pharmacopœia, which shall be known as the "National Pharmacopœia of the United States of America," and shall be held and accepted as the standard for the purveying, compounding, and dispensing of drugs or medicinal agents, and shall be taken as authority in the Treasury Department on all questions arising under the tariff laws of the United States with regard to the nomenclature, description, and purity of drugs or remedial agents, and shall further be received as evidence in the United States courts. And the matters contained in the said pharmacopœia shall be free for use by all authors and commentators for the benefit of the medical and pharmaceutical professions and of the community at large; and it shall not be lawful for any one to reprint and publish the said pharmacopœia as a whole.

SEC. 2. That the medical officers detailed as above provided shall invite the American Medical Association and the American Pharmaceutical Association, at their next annual meetings, to form committees of not more than three members from each of the said associations, which committees, if so appointed, may coöperate with the above-named medical officers in the preparation of said pharmacopœia, forming a board which shall have power, from time to time, to add to its number as may, in its judgment, be necessary, and which shall elect a chairman and a secretary, and adopt such rules as it shall see fit for the expediting and perfecting of the said pharmacopœia. It also calls for an edition of not less than 5,000 copies, and appropriates $5,000 for the necessary expenses.

Section 4 declares that the pharmacopœia shall be revised once in ten years upon the plan embodied in this act.

Mr. Young introduced a bill (H. R. 2785), to prevent the introduction of infectious and contagious diseases into the United States, and to establish a National Board of Health. It amends and enlarges the provisions of an existing act in the relations of the Board to State and municipal boards of health, to vessels and their cargoes, to consular officers, requiring of them weekly sanitary reports to the Board. The Board is required in turn to make weekly reports embodying all such sanitary information as may be at their disposal, and to issue sanitary rules and regulations. The unexpended balance in the U. S. Treasury, $127,083.50, is made available for the purpose of carrying out the provisions of the several acts, to which is added the $100,000 appropriated for use in case of epidemic.

Jan. 9. Mr. Miller, of New York, introduced a bill, Senate, 982, for the maintenance and support of the Marine Hospital Service solely by the United States Government; and,

Jan. 15, Mr. Jones, of Florida, introduced a bill, Senate, 1105, to erect a building for a marine hospital at Pensacola, Florida, appropriating $75,000 for the erection of the building.

Jan. 11. Mr. Call, of Florida, introduced a bill, Senate, 1044, to establish a University of Medicine at the Capital of the United States, in the District of Columbia, for the advancement of science and the discovery of improved methods of treatment and cure of disease.

Section 1 appropriates $1,000,000 as a perpetual endowment.

Section 2 appropriates $100,000 for the erection of buildings and purchase of ground.

SEC. 3. Provides that the interest on the one million of dollars shall be annually paid for salaries of the professors and the expenses of the University.

SEC. 4. That the professors' chairs shall be open to all schools of medicine, and all methods of treatment and cure of disease.

SEC. 5. That the allopathic, homœopathic and eclectic schools of medicine shall all be represented in the professional chairs of said University, free and impartial opportunity to be afforded for proof of the value of each of such schools of medicine, and of methods of treatment, the end and purpose of this university being to apply the severest processes of reason and experiment to all alleged discoveries and remedial agencies for the cure of disease, etc.

SEC. 6. That the Board of Trustees shall decide what professorships shall be established; and whenever any system or method of cure of disease shall obtain any considerable hold on the public mind, it shall be the duty of the said Board of Trustees to allow the professors of such system to appear at this University and submit the same to scientific examination and practical experiment and proof.

SEC. 7. That suitable hospitals for the treatment of diseases according to the methods of all systems, and for experiment with all remedial agents, shall be established, etc. etc., and if the treatment or experiment is upon a person in good health, an accurate statement shall be made of the results, etc.

We should watch with considerable interest the development of this new University, particularly as regards the establishment of allopathy. The advocates of medical dogmas, and consequently the laity generally, have for a long time been applying this term of allopathy quite promiscuously. Here is an opportunity to determine who there are among medical men to whom this term can be applied. The provisions of the bill admit of no misunderstanding, and it is necessary for the proper organization of the University that there be such a school, and that it be represented, and of course, under such circumstances, it will have to be clearly defined. Ought not the representatives of the faith cure and of total abstinence from alcohol also to be explicitly provided for in the bill? They certainly have obtained considerable hold on the public mind. Where the patients are to come from, in view of the clearly expressed determination to experiment in the severest manner, is

another question, but probably that is of secondary importance.

Mr. Hale, of Maine, on January 22, introduced into Congress Senate bill 1,223, to the effect that all appointments to medical service under the government shall be made from graduates of legally chartered medical institutions, without discrimination in favor or against any school or theory of medical practice. That any violation of the foregoing section shall be punished in the same manner as prescribed for like offenses by the act entitled "An act to regulate and improve the civil service of the United States," January 16, 1883.

It is hard to see how such a bill, if passed, is going to be carried into effect. It takes away a privilege which was at one time claimed by the Examining Board of the Army and Navy Medical Corps, that of examining all candidates without reference to their diplomas, *i. e.*, to whether they were graduates of a medical college or not, and restricts them to graduates in medicine for the future. But to say that they shall not discriminate in favor or against any theory of medical practice, is simply nonsense. For what other purpose are they appointed?

NECROLOGY.

HARRIS, ELISHA, A.M., M.D., of New York, was born in Westminster, Vt., March 5, 1824; died of peritonitis, after four days illness, in Albany, New York, January 31, 1884. He was the son of a farmer, and attended in youth the schools of the neighborhood and assisted his father at farm work. When sufficiently advanced he taught school, and commenced the study of medicine with Dr. S. B. Woolworth, and after attending the usual course of lectures graduated M. D. at the College of Physicians and Surgeons of New York in 1849. His love of study and the facilities which the City of New York afforded, determined him to begin practice there. Shortly after this he was united in marriage to the only daughter of the Rev. Joseph B. Andrews. The union was a happy one, but his wife died without children in 1867. The doctor never married again. Dr. Harris early gave evidence of special aptitude for systematizing reports on public health questions. In 1855 he was appointed Superintendent and Physician-in-Chief of the Quarantine Hospital on Staten Island. So acceptably did he discharge his duties that in 1859 the building of the floating hospital, to be anchored below the Narrows, facing the open sea, was intrusted to him. Dr. Harris was a man of good physique, temperate habits, of an equable temper and suave manners, capable of a prodigious amount of labor. He was all his life an extensive reader of the best literature, and was as well informed upon State and sanitary medicine as any physician in America, or perhaps in the world. Dr. Harris enjoyed a wide correspondence for many years with the most distinguished sanitarians through Europe and the United States, and his opinions on sanitary matters were held in the highest esteem. On the breaking out of the war of the Rebellion, he, in conjunction with the Rev. Henry C. Bellows and others, organized the National Sanitary Commission, and for nearly five years gave his time to that humane work. The railway ambulance was his invention, and which proved of such inestimable service during the war. The Exposition Universal in Paris awarded him in 1867 a bronze medal in recognition of its value. A silver medal was also granted him for the same ambulance by the Société des Secours aux Blessés. This railway ambulance was adopted and has been used in the Prussian Army and in the Franco-Prussian war. Dr. Harris devised the system for a record of the deaths and burials of soldiers which became general in the army. His eminent ability as a statist, and familiarity with the work of the National Sanitary Commission, led to his being selected as chief editor of the "Sanitary Memoirs of the War," which were published in several volumes. At the close of the war he again turned his attention to the sanitary condition and needs of the city of New York. And as a voluntary work he supervised a sanitary survey of the city. The study was published by the Appletons, and proved of great value to the city of New York, as well as to all students of sanitary science. On the organization of New York Metropolitan Board of Health, in March, 1866, Dr. Harris was appointed to the position of Registrar of Records, which he filled with ability until 1870, when a change of administration led to his retirement. In 1873 he was appointed Registrar of Vital Statistics, which position, by a change of city politics, was taken from him in 1876. But although Dr. Harris was relieved of office he never gave up his enthusiastic devotion to sanitary and public health studies. One of the best investigations and most fruitful of immediate advantage to the poor in the city of New York, was his thorough tenement house survey in 1869. Bad as the tenement houses are now in that great metropolis, things were a hundred-fold worse before the facts were collected and tabulated, and their danger to the public health so graphically delineated and laid before the legislature and the city authorities. Dr. Harris was a prolific writer on sanitary and reformatory subjects. The extent of his labors and writings is a matter of wonder to those who knew him best. Among his works the following were regarded as worthy of mention: Four reports on "Quarantine Hospitals, Yellow Fever, and Cholera," "An Essay on Pestilential Diseases," "Ventilation of American Dwellings," "Reviews of the Sanitary Experiences of the Crimean Campaign," "A History of the Work and Purposes of the United States Sanitary Commission," "A Practical Manual on Infectious and Contagious Diseases in Camps, Hospitals, and Ships," "The Citizen's Report on the Sanitary Condition and Wants of New York," a volume that has passed through several editions; "The Criminality of Drunkenness," "Nine Reports on Reformatory and Penal Institutions," "Six Reports of the Bureau of Vital Statistics of New York," "Reports of Sanitary Superintendent of the Metropolitan District of New York," "Four Reports of the American Public Health Association," Chapters in the Medical and

Sanitary Memoirs of the War," "Report of the Sanitary Government and Vital Statistics of American Cities," "Vaccination and Small-pox, and the Lessons of Jenner," "Reports and Transactions of the State Board of Health," "Report on a Uniform System of Vital Statistics in the United States." Dr. Harris was also widely known for his philanthropy. He was for many years identified with the Prison Association for the care and reformation of discharged convicts; a member of the society for improving the domiciles and condition of the poor, and of various other benevolent societies. Dr. Harris was a member of the County and State Medical Societies, the New York Academy of Medicine, the Physicians' Mutual Aid Association, the Society for the Relief of Orphans and Widows of Medical Men, the Medical Journal Association, and the Public Health Association of New York. He became a member of the American Medical Association in 1853, and attended meetings in 1860, 1864, 1868, 1872, 1876, 1877, and 1880. A member of the International Centennial Medical Congress in Philadelphia in 1876. He was one of the chief originators of the American Public Health Association and its Secretary for a number of years, and its President in 1879. Ever since its organization he has worked zealously for its success, and to promote its influence and advance the science of sanitation through all the States. The National Board of Health was the natural outgrowth of this organization, and for which body he also worked zealously. For some years Dr. Harris has held the position of Secretary of the New York State Board of Health, a position he was eminently qualified to fill. He fell at his post of duty. Few men have devoted themselves more zealously to their chosen path of professional labor, or have followed it with greater ability and less selfishness than has this great champion of sanitary science—Elisha Harris.

J. M. T.

In Memory of the late Dr. Benjamin Tappan.—At a special meeting of the Jefferson County Medical Society held in Steubenville, Ohio, January 21, 1884, it having been announced that Dr. Benjamin Tappan, aged 71 years, died on the 17th inst., at his home in this city, the following testimonial was ordered to be spread upon the records of the society:

Resolved: That in the death of Dr. Benjamin Tappan, one of its founders in 1858, and for many years its President, the Jefferson County Medical Society has lost a distinguished physician and surgeon, a profound scholar, a clear and independent thinker and logical reasoner, who, during his most extensive and successful medical and surgical practice, did very much to advance medical education and elevate the standard of professional knowledge. Skillful, self-reliant, persevering, and always a student, he possessed the elements of professional success, and was remarkable for the charity with which he bestowed with devoted attention, his able services among the poor. His scholarly attainments were not confined to his profession and allied sciences, his range of scientific knowledge being very comprehensive and complete, ranking him among the most learned of the profession.

With brilliant intellect and great force of character, he was often a warm friend or a formidable opponent.

The society hereby tenders its warmest sympathy to his bereaved family in their great affliction, and directs that a copy of these proceedings be presented by the President of this society to the family of the deceased, and that the Secretary furnish copies of the same to the Journal of the American Medical Association and city papers for publication.

E. Pearce, M.D.,
A. M. Blackburn, M.D., } Com.
B. H. Fisher, M.D.

E. Pearce, M.D., President,
J. C. M. Floyd, M.D., Secretary.

MISCELLANEOUS.

NEW BOOKS.

Ashhurst, J. The International Encyclopædia of Surgery. In 6 vols., v. 4. New York: W. Wood & Co. 8vo., subs. $6.00.

Curtis, E. Manual of General Medicinal Technology, including prescription writing. New York: W. Wood & Co., Wood's Pocket Manuals. 234 pp. 7t. $1.

Delafield, Francis. Studies in Pathological Anatomy. Vol. 2, pt. 1, Broncho-Pneumonia. 8vo. 15 p. 12 photo's. New York: W. Wood & Co. $2.00.

Fletcher, Robert. Tattooing Among Civilized People. Washington, D. C.: Judd & Detweiler. 8vo. 27 pp. Paper. $4.

Kirby, K. O. Veterinary Medicine and Surgery in Diseases and Injuries of the Horse. New York: W. Wood & Co. (Wood's Lib. of Standard Medical Authors.) 8vo. 322 pp. subs. $1.25.

Medical Record, The. Visiting List and Physicians' Diary for 1884. Yew York: W. Wood & Co. For 30 patients a week, $1.25; for 60 patients a week, $1.50.

Parkes, Edmund A. Manual of Practical Hygiene. 6th ed New York: W. Wood & Co. vol. 2. 8v. (Wood's Lib. of Standard Medical Authors) Subs. $1.25.

Ringer, Sidney. Hand-Book of Therapeutics. Tenth edition. New York: W. Wood & Co. 8vo. $5.

Williams, W. The Principles and Practice of Veterinary Medicine. First American edition. New York: W. Wood & Co. 8vo. 589 pp. Illustrated. $5.

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department United States Army, from February 1, 1884, to February 8, 1884.

Barnett, Richards, Captain and Assistant Surgeon; granted leave of absence for six months on account of disability. (Par. 8, S. O. 13, A. G. O., Jan. 16, 1884).

Changes in the Medical Corps of the Navy for the Week Ending Feb. 7, 1884.

Surgeon W. K. VanReypen, from the U. S. S. Powhatan, to the Navy Department as Assistant to the Bureau of Medicine and Surgery, and acting Chief of that Bureau.

Surgeon A. A. Hoehling from special duty at Washington to the Powhatan.

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THE AMERICAN MEDICAL ASSOCIATION

AND OF ITS SEVERAL SECTIONS, 1883–4.

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